

عنوان مقاله:

Template-Confined Growth of X-Bi₂MoO₆ (X: F, Cl, Br, I) Nanoplates with Open Surfaces for photocatalytic oxidation

محل انتشار:

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خلاصه مقاله:

The present work describes a series of two-dimensional architecture of CTAB-assisted X-Bi₂MoO₆ (X: F, Cl, Br, I) with open surfaces for adsorption and photodegradation of RhB. The effects of Halogen-doping and surfactant on the physicochemical properties of Bi₂MoO₆ are investigated by different analysis. Based on the XRD patterns, the crystal planes of Bi₂MoO₆ were affected by the substitution of X⁻ anions for the host O₂⁻ (mainly by F⁻) [1]. FE-SEM images confirmed the confined growth of nanoplates under the influence of CTAB template, which leads to surface doping of more halogen ions within oriented nucleation process [2]. The results indicated all of the X-doped catalysts, especially F-doped sample, show enhanced photocatalytic activity with different levels, due to lower band gap, improved charge separation, and surface properties.

کلمات کلیدی:

Photocatalytic degradation; Bi₂MoO₆; halogen-doping

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